To,

ASSISTANT EXECUTIVE ENGINEER
SHETTYHALLI SUB DIVISION
BBMP

BANGALORE

Date: 18-12-2020

Dear Sir,

Sub: M/s. Civil Pro Services for the work of "IMPROVEMENTS TO CONCRETE DRAINS IN 1ST TO 3RD CROSS GATE PLAYA SHETTYHALLI WARD NO.12 SHETTYHALLI SUB DIVISION"

Ref: 1. Work Order No: EE/DD/W.O/595/2019-20

2. Job code: 012-20-000040

We are here with forwarding to M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010. First and Final bill duly verified and certified that the Work is satisfactory and for a Gross Value of RS.54,82,170.23 /-(RS. Fifty Four Lakhs Eighty Two Thousand One Hundred Seventy and Twenty Three Paisa Only).

Thanking you,

Yours faithfully,

For Civil Pro

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
AUTHORIZED SIGNATORY
CIVIL PRO

CIVIL PRO

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

QC ABSTRACT

NAME OF WORK: "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
3	Coarse aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
4	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
5	Steel	Bend test	One Test		1	1
		Tensile Test	One Test		1	1
		Yield Test	One Test		1	1
		ReBend test	One Test		1	1
6	Precast (100mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
7	Precast (250mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
8	Design Mix (M25)	Compressive Strength(7days and 28days)	6 set /100-150 cum	136.99	12	12
9	Cement Concrete Pavemet (M30)	Compressive Strength(7days and 28days)	7 set /150-200 cum	162.88	14	14
10	GSB	SIEVE ANALYSIS	One Test		1	1

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-2021-02-06-10 **Date: 24-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	22-10-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.98	–
2	Finess by Air permeablity method (m^2/kg,Min)	297.3	225m^2/kg, Min
3	Density (gm/cc)	3.11	–
4	Standard Consistency (%)	29.5%	Not specified
5	Initial Setting time	175 minutes	Not less than 30 minutes
6	Final Setting time	285 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

Any correction in the report will make this report invalid

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Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2021-02-06-10** **Date: 24-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore
Address	:	Shettyhalli Sub Division, BBMP, Bangalore
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ; IS 4031 (Part 1,2 3,4,5, 6,11)-1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4 4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	22-10-20
Environmental Conditions during test	:	Temperature 26°C Humidity 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.98	-
2	Fineness by Air permeablity method (m^2/kg,Min)	297.3	225m^2/kg, Min
3	Density (gm/cc)	3.11	-
4	Standard Consistency (%)	29.5%	Not specified
5	Initial Setting time	175 minutes	Not less than 30 minutes
6	Final Setting time	285 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

- The results obtained are satisfactory as per standard requirements

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Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2021-02-06-10** **Date: 19-11-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	22-10-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.0N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.5N/mm^2	Not less than 53 N/mm^2

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Quality Manager

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Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2021-02-06-10** **Date: 24-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	21-10-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	214	214	1.4	98.6	90-100
3	20 mm	5049	5263	35.1	64.9	30-70
4	10 mm	7132	12395	82.6	17.4	10-35
5	4.75 mm	2121	14516	96.8	3.2	0-5
6	Pan	484	15000	100.0	0	---

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	CP-2021-02-06-10 **Date: 23-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	21-10-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : **5000** grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	195	195	3.9	96.1	90-100
3	10 mm	2714	2909	58.2	41.8	25-55
4	4.75 mm	1988	4897	97.9	2.1	0-10
5	Pan	103	5000	100	0	-

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TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2021-02-06-10**

Date: 23-10-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.4	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.8	
3	Specific Gravity	2.57	–
4	Bulk Density(Loose) (Kg/l)	1.41	–
5	Bulk Density(Compacted) (Kg/l)	1.49	–
6	Water Absorption(%)	0.28	–
7	Aggregate crushing Value(%)	23.1	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	21.7	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2021-02-06-10** **Date: 23-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	21-10-20
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	27	27	2.7	97.3	90-100	90-100	90-100	95-100
3	2.36 mm	55	82	8.2	91.8	60-95	75-100	85-100	95-100
4	1.18 mm	239	321	32.1	67.9	30-70	55-90	75-100	90-100
5	600 micron	205	526	52.6	47.4	15-34	35-59	60-79	80-100
6	300 micron	203	729	72.9	27.1	5-20	8-30	12-40	15-50
7	150 micron	191	920	92.0	8.0	0-10	0-10	0-10	0-15
8	Pan	80	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2021-02-06-10**

Date: 23-10-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.5	–
2	Specific Gravity	2.59	–
3	Material finer than 75 micron(%)	6.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Authorized Signatory
Quality Manager

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Format No: CP/TF/01

TEST RESULTS OF STEEL

Lab ID	:	**CP-2021-02-06-10** **Date: 22-10-20**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-10-20
Sample Type	:	Sunvik
Reference to BIS codes	:	IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012.
Date of test	:	21-10-20

Sl.No	Identification of sample	Grade of the sample	Diameter of the steel bar	Weight of the sample	Yield stress	Tensile strength	Elongation	Bend test	Rebend test
			(mm)	(kg/m)	(N/mm2)	(N/mm2)	(%)		
1	Sunvik	Fe500	8	0.391	512	652	20.0%	Satisfactory	Satisfactory
2	Sunvik	Fe500	10	0.616	528	672	20.0%	Satisfactory	Satisfactory
3	Sunvik	Fe500	12	0.888	544	668	20.0%	Satisfactory	Satisfactory

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TEST REPORT OF PRECAST COVER SLAB

Format No: CP/TF/01

Lab ID	:	**CP-2021-02-06-10**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore. **Date: 06-11-20**
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	02-11-20
Sample Type /Size	:	Precast Cover Slab (100mm)
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete
Date of test	:	02/11/2020

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
1	Cover Slab-1	75.51	100.48	1.116	4477	80.9	18.1	16.8	21.0
2	Cover Slab-2	75.49	100.52	1.122	4475	82.3	18.4	17.1	21.4
3	Cover Slab-3	75.50	100.51	1.118	4476	81.5	18.2	16.9	21.2

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Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Date: 06-11-20

Lab ID	:	**CP-2021-02-06-10**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	02-11-20
Sample Type /Size	:	Precast Cover Slab (250mm)
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete
Date of test	:	02/11/2020

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
1	Cover Slab-1	200.51	250.48	3.116	31570	230.9	7.3	6.8	8.5
2	Cover Slab-2	200.49	250.52	3.122	31564	232.3	7.4	6.8	8.6
3	Cover Slab-3	200.50	250.51	3.118	31567	231.5	7.3	6.8	8.5

* The results obtained are satisfactory as per standard requirements.

Note:

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CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2021-02-06-10** **Date: 04/11/2020**

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

Agency : M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010

Customer's Reference : EE/DD/W.O/595/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 30-10-20

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M25 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 04/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	151.50 X 150.64 X 151.04	22821	8.605	535.9	23.5	22.7
2	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	149.66 X 151.99 X 150.40	22748	8.278	512.7	22.5	
3	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	149.09 X 150.33 X 151.66	22412	8.485	496.4	22.1	

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 25/11/2020

Lab ID	:	CP-2021-02-06-10
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	30-10-20
Customer ID	:	Drain Bottom Slab Concrete
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M25 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	25/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	150.93 X 149.76 X 151.42	22604	8.186	627.6	27.8	27.4
2	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	150.35 X 150.29 X 149.23	22596	8.022	588.4	26.0	
3	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	151.02 X 151.29 X 151.38	22848	8.016	649.2	28.4	

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Certificate No.: TC-5548

TEST REPORT OF CEMENT CONCRETE CUBES

Format No: CP/TF/01

Lab ID : CP-2021-02-06-10

Date: 04/11/2020

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

Agency : M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010

Customer's Reference : EE/DD/W.O/595/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 30-10-20

Customer ID : Drain Bottom Slab Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M25 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 04/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm^2)	(N/mm^2)
1	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	151.82 X 149.90 X 149.99	22758	8.605	538.2	23.6	22.9
2	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	151.58 X 149.66 X 149.12	22686	8.278	508.8	22.4	
3	Drain Bottom Slab Concrete	M25	28/10/2020	04/11/2020	151.70 X 149.65 X 151.67	22703	8.485	511.6	22.5	

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Certificate No : TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	:	**CP-2021-02-06-10** **Date: 25/11/2020**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	"Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"
Agency	:	M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010
Customer's Reference	:	EE/DD/W.O/595/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	30-10-20
Customer ID	:	Drain Bottom Slab Concrete
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M25 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	25/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	150.86 X 149.05 X 151.42	22485	8.186	625.4	27.8	27.5
2	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	149.75 X 150.27 X 150.79	22504	8.022	587.4	26.1	
3	Drain Bottom Slab Concrete	M25	28/10/2020	25/11/2020	149.85 X 151.57 X 149.20	22712	8.016	651.3	28.7	

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TEST REPORT OF CEMENT CONCRETE CUBES

Format No. CP/TF/01

Lab ID : **CP-2021-02-06-10**

Date: 07/11/2020

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

Agency : M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010

Customer's Reference : EE/DD/W.O/595/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 02-11-20

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M25 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 07/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	150.48 X 151.58 X 150.86	22809	8.605	534.1	23.4	22.8
2	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	150.39 X 150.49 X 151.52	22631	8.278	507.4	22.4	
3	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	149.28 X 149.30 X 149.39	22287	8.485	501.9	22.5	

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2021-02-06-10** **Date: 28/11/2020**

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

Agency : M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010

Customer's Reference : EE/DD/W.O/595/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 02-11-20

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M25 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 28/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M25	31/10/2020	28/11/2020	151.70 X 150.56 X 150.51	22839	8.186	638.8	28.0	27.6
2	Drain Side Wall Concrete	M25	31/10/2020	28/11/2020	150.66 X 149.53 X 151.38	22529	8.022	589.7	26.2	
3	Drain Side Wall Concrete	M25	31/10/2020	28/11/2020	151.54 X 151.06 X 149.42	22891	8.016	658.0	28.7	

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Authorized Signatory
Quality Manager

****End of Report****

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2021-02-06-10** **Date: 07/11/2020**

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Improvements to Concrete Drains in 1st to 3rd Cross Gate Playa Shettyhalli Ward No.12 Shettyhalli Sub Division"

Agency : M/S Technical Manger (West), Karnataka Rural Infrastructure Development Limited, No.280, 59th Cross 17th C Maain Road, 3rd Y Block Rajaji Nagara, Bangaluru-560010

Customer's Reference : EE/DD/W.O/595/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 02-11-20

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M25 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 07/11/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	149.06 X 150.58 X 150.85	22445	**8.605**	537.9	24.0	23.0
2	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	150.10 X 150.68 X 151.53	22617	**8.278**	506.4	22.4	
3	Drain Side Wall Concrete	M25	31/10/2020	07/11/2020	151.30 X 151.51 X 151.83	22924	**8.485**	521.6	22.8	

* The results obtained are satisfactory as per standard requirements.

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